

Work Order ID 114492

March-07-14 3:33:30 PM

Blue

114492

Page 1

Item ID: D2938-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: 206 Saddle Left Side

Start Date: 07/03/2014 Start Qty: 12.00

12

Cust Item ID:

Required Date: 28/03/2014 Req'd Qty: 12.00

12

Customer:

Reference:

Approvals:

Process Plan: 

Date: 14-03-10

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2938

Rev C

100

0.00

100

HAAS 1

HAAS CNC VERTICAL MACHINING #1

HAAS CNC vertical machine #1

Memo

0.00

Program part number and batch number.1-Inspect part number and batch number are programmed correctly.2-Machine Step No 1 of Folio and visually inspect as per dwg D2938 & attached Dimension Sheet 3-Machine Step No 2 of Folio and visually inspect as per

12

1

14-03-30
MH 14/03/31

110

0.00

110

Mill Conv

CONVENTIONAL MILLING MACHINE

Conventional Milling Machine

Memo

0.00

Machine Keyway and inspect per attached dimension sheet

12

1

14-03-30
MH 14/03/31

120

0.00

120

QC

QC1- Inspect dimensions to dimension sheet

Quality Control

Memo

0.00

12

1

14-03-30
MH 14/03/31

DQA:

Date: 14/05/10

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed:

Date: 14/5/12

Work Order update only ☐

| | | | | | | |
|--------------------|---|---|------------------------------------|--|--------------------------------------|--|
| Work Order: 114492 | DISPOSITION | | AGAINST DEPARTMENT/PROCESS | | | |
| Part No. D2938-1 | Rework <input type="checkbox"/> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | |
| NCR No. 14-3809 | Scrap <input checked="" type="checkbox"/> | Machining <input checked="" type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | |
| | Use-as-is <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | |
| | Suspected Unapproved <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | |

| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|----------|-----|---|-------------------|---------------------|-------------|--------------|--------------|
| Design | | | | lowered face mill too low in offset. | DAS 16 9-89 | Scrap and Destroy | MH 14/03/30 | | DAS 16 9-89 |
| Doc/Data | | | | Skid Golt face is now undersize D70". | Q52042 | And Repk. | | | 14/03/31 |
| Equip/Tooling | | | | | 14/03/31 | 16101-003 in 114314 | | | Q52042 |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | X | 14/03/30 | 100 | Re operator error / Didn't verify his offset | | | | | |
| Offset/Setup | | | | \$ 31.16 | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| Landing Gear | General | | |
|---|---|--|--|
| <input type="checkbox"/> Bending | <input type="checkbox"/> Bend | <input type="checkbox"/> Folio/Program | <input type="checkbox"/> Outside Dimensions |
| <input type="checkbox"/> Centre Not Concentric | <input type="checkbox"/> BOM/Route | <input type="checkbox"/> Grain | <input checked="" type="checkbox"/> Over/Under tolerance |
| <input type="checkbox"/> Cracks | <input type="checkbox"/> Broken/Damage/Defect | <input type="checkbox"/> Hardware | <input type="checkbox"/> Part Incorrect |
| <input type="checkbox"/> Crimp/Kink/Ripple/Wave | <input type="checkbox"/> Burrs | <input type="checkbox"/> Inspection Incomplete/Unqualified | <input type="checkbox"/> Part Lost/Missing |
| <input type="checkbox"/> Cuffs | <input type="checkbox"/> Contamination | <input type="checkbox"/> Instructions Incomplete/Unclear | <input type="checkbox"/> Part Moved |
| <input type="checkbox"/> Crushing | <input type="checkbox"/> Countersink | <input type="checkbox"/> Misaligned/off-center | <input type="checkbox"/> Positioned Wrong |
| <input type="checkbox"/> Heat Treat | <input type="checkbox"/> Cut Too Short | <input type="checkbox"/> Mislabeled | <input type="checkbox"/> Power Loss/Surge |
| <input type="checkbox"/> Inspection Strip in Tube | <input type="checkbox"/> Drawing | <input type="checkbox"/> Misread | <input type="checkbox"/> Pressure/Forced |
| <input type="checkbox"/> Marks/Chatter | <input type="checkbox"/> Drill Holes | <input type="checkbox"/> Off-set | <input type="checkbox"/> Set-up |
| <input type="checkbox"/> Turning Sequence | <input type="checkbox"/> Finish | <input type="checkbox"/> Out of Calibration | <input type="checkbox"/> Temperature/Cure |
| <input type="checkbox"/> Wave/Twist in Tube | <input type="checkbox"/> Fit/Function | <input type="checkbox"/> Out of Sequence | <input type="checkbox"/> Weld |
| | | | <input type="checkbox"/> Wrong Stock Pulled |
| | | | <input type="checkbox"/> Other |

Work Order ID 114492

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Page 2

Item ID: D2938-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: 206 Saddle Left Side
 Start Date: 07/03/2014 Start Qty: 12.00 ***12*** Cust Item ID:
 Required Date: 28/03/2014 Req'd Qty: 12.00 ***12*** Customer:
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|----------------------|---------|---|--------------|---------------|---------------|------------------|-------------------|
| 130 *130* QC Quality Control | QC8- Inspect parts - second check Memo | 0.00 0.00 | | B-a 14/04/02 | | 12 | 0 | | DAS 08 9-89 |
| 140 *140* HandFinish Hand Finishing | Chemical Conversion Coat per QSI005 4.1 Memo | 0.00 0.00 | | | | 12 | | 7/6 14-4-3 | |
| 150 *150* Powdercoat Powder Coating | White Gloss (Ref 4.3.5.1) per QSI005 4.3-Alum Memo START TIME: FINISH TIME: OVEN TEMPERATURE: | 0.00 0.00 | | Prime B 128826 Del fleet Blue B 127671 Del fleet Clear B 125385 | | 12 | 0 | 0 | AP 14-4-21 |

155 spray paint

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

| | | | | | | | | | | | | | | | | | | |
|--|--|--|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--|----------------------------------|--|------------------------------------|--|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: _____ Part No. _____ NCR No. _____ | DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/> | AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | |
| Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | | | | | | | | | | | | | | |

| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Design | | | | | | | | | |
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| | | | |
|--|--|---|---|
| Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube | General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function | <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence | <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other _____ _____ _____ |
|--|--|---|---|

Work Order ID 114492

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Page 3

Item ID: D2938-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: 206 Saddle Left Side
Start Date: 07/03/2014 Start Qty: 12.00 ***12*** Cust Item ID:
Required Date: 28/03/2014 Req'd Qty: 12.00 ***12*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|---|----------------------|---------|--------|--------------|---------------|---------------|------------------|------------------------------|
| 160 | QC3- Inspect Part Finish | 0.00 | | | | | | | |
| *160* | <i>QC4</i> Memo | 0.00 | | | | | | | <i>14-04-22</i> <i>(x12)</i> |
| QC | | | | | | | | | |
| Quality Control | | | | | | | | | |
| 170 | Identify as per dwg & Stock Location | 0.00 | | | | | | | |
| *170* | <i>5744</i> Memo | 0.00 | | | | | | | <i>14-4-22</i> |
| Packaging | | | | | | | | | |
| Packaging | | | | | | | | | |
| 180 | QC21- Final Inspection - Work Order Release | 0.00 | | | | | | | |
| *180* | Memo | 0.00 | | | | | | | <i>MLJ 14-04-23</i> |
| QC | | | | | | | | | |
| Quality Control | | | | | | | | | <i>(A) 14-04-22</i> |

DAS
28
8:30

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

| | | | | | | | | | | | | | | | | | | |
|--|--|---|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--|----------------------------------|--|------------------------------------|--|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: _____ Part No. _____ NCR No. _____ | DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/> | AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | |
| Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | | | | | | | | | | | | | | |

| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Design | | | | | | | | | |
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| | | |
|--|--|---|
| Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube | General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function | <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence |
| <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge | | |
| <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other | | |

Picklist Print

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Page 1

Work Order ID: 114492

114492

Parent Item: D2938-1

D2938-1

Parent Item Name: 206 Saddle Left Side

Start Date: 07/03/2014

Required Date: 28/03/2014

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP: B 00.06.26 New DWG rev (mpp 2069)EC
IPP Rev:C As per Rev C 07-03-19 JLM

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|-----------------|--------|
| D6101-003 | | Manufactured | No | | | 100 | Each | 13.0000 | 1 | 12 | | | |
| *D6101-003* | | | | | | | | | ** | 12 | | <i>14-03-30</i> | |

Saddle Billet, 7075

Location

Loc Qty

Loc Code

MAT045

13

108298

7

109528

2

111016

4

114 314

113 748

2

7 +1 14-04-01

3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

| | | | | | | |
|--|--|--|--|--|---|--|
| Work Order: _____ Part No. _____ NCR No. _____ | DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/> | AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td style="width: 33%;"> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </td> <td style="width: 33%;"> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </td> <td style="width: 33%;"> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </td> <td style="width: 33%;"> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </td> </tr> </table> | Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> | Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> | Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> | Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> |
| Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> | Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> | Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> | Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> | | | |

| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Design | | | | | | | | | |
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| | | | |
|--|--|---|--|
| Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube | General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function | <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence | <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other |
|--|--|---|--|

| | | |
|--|--|-----------------------------|
| DART AEROSPACE LTD | | Work Order: 114 492 |
| Description: 206 Saddle left side | | Part Number: D2938-1 |
| Inspection Dwg: D2938 Rev C | | Page 1 of 1 |

Inspect dimensions highlighted on inspection sheet drawing D2932 Rev. C and record below:

| | | | | Recorded Actual Dimensions | | | | | |
|---------------|-------|-------|----------------|----------------------------|-------|-------|-------|----|------|
| Dim | Min | Max | Go/No Go Gauge | 1 | 2 | 3 | 4 | By | Date |
| A | 0.100 | 0.140 | | .120 | .132 | .132 | .128 | | |
| B | 0.100 | 0.140 | | .119 | .133 | .133 | .129 | | |
| C | 0.100 | 0.140 | | .107 | .123 | .114 | .112 | | |
| D | 0.210 | 0.230 | | .214 | .219 | .219 | .221 | | |
| E | 1.245 | 1.255 | | 1.250 | 1.251 | 1.250 | 1.250 | | |
| F | 1.245 | 1.255 | | 1.250 | 1.251 | 1.250 | 1.250 | | |
| G | 2.495 | 2.505 | | 2.500 | 2.500 | 2.500 | 2.500 | | |
| H | 0.510 | 0.515 | | .512 | .511 | .510 | .510 | | |
| I | 1.572 | 1.582 | | 1.577 | 1.577 | 1.577 | 1.577 | | |
| J | 2.495 | 2.505 | | 2.500 | 2.50 | 2.500 | 2.500 | | |
| K | 0.257 | 0.262 | | .259 | .259 | .259 | .259 | | |
| L | 0.312 | 0.317 | | .314 | .314 | .314 | .314 | | |
| M | 0.235 | 0.240 | | .239 | .238 | .238 | .238 | | |
| N | 0.100 | 0.140 | | .120 | .116 | .116 | .120 | | |
| O | 0.540 | 0.560 | | .550 | .550 | .548 | .548 | | |
| P | 0.490 | 0.510 | | .499 | .498 | .500 | .497 | | |
| Q | 3.715 | 3.725 | | 3.720 | 3.720 | 3.720 | 3.720 | | |
| R | 2.720 | 2.760 | | 2.740 | 2.743 | 2.740 | 2.740 | | |
| S | 0.240 | 0.270 | | .244 | .251 | .251 | .251 | | |
| T | 0.100 | 0.180 | | .140 | 1.30 | .140 | .140 | | |
| U | 1.625 | 1.635 | | 1.630 | 1.630 | 1.630 | 1.630 | | |
| V | 1.362 | 1.372 | | 1.367 | 1.367 | 1.367 | 1.367 | | |
| W | 0.316 | 0.321 | | .316 | .316 | .316 | .316 | | |
| X | 1.250 | 1.270 | | 1.261 | 1.261 | 1.261 | 1.265 | | |
| Y | 1.565 | 1.585 | | 1.5745 | 1.575 | 1.575 | 1.578 | | |
| Z | 0.178 | 0.198 | | .188 | .188 | .188 | .188 | | |
| AA | | | | | | | | | |
| AB | | | | | | | | | |
| AC | | | | | | | | | |
| AD | | | | | | | | | |
| AE | | | | | | | | | |
| AF | | | | | | | | | |
| AG | | | | | | | | | |
| AH | | | | | | | | | |
| Accept/Reject | | | | Scrap | | | | | |

| | |
|--------------|---------------------|
| Measured by: | SL / MH |
| Date: | 14-03-30 / 14/03/31 |

| | |
|-------------|----------|
| Audited by: | MA |
| Date: | 14/04/02 |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|---|------------|----------|
| A | | New Issue | RF | |
| B | 02.12.12 | Re-format; Added Dim. X-Y, DT8683, DT8686, DT8690 | KJ/RF | |
| C | 07.03.21 | Revised per drawing revision C | KJ/JLM | |

| | | |
|--|--|-----------------------------|
| DART AEROSPACE LTD | | Work Order: 114 492 |
| Description: 206 Saddle left side | | Part Number: D2938-1 |
| Inspection Dwg: D2938 | | Page 1 of 1 |

Inspect dimensions highlighted on inspection sheet drawing D2932 Rev. C and record below:

| | | | | Recorded Actual Dimensions | | | | By | Date |
|---------------|-------|-------|----------------|----------------------------|-------|--------|-------|----|------|
| Dim | Min | Max | Go/No Go Gauge | 5 | 6 | 7 | 8 | | |
| A | 0.100 | 0.140 | | .127 | .128 | .128 | .128 | | |
| B | 0.100 | 0.140 | | .129 | .128 | .128 | .128 | | |
| C | 0.100 | 0.140 | | .113 | .113 | .112 | .112 | | |
| D | 0.210 | 0.230 | | .225 | .224 | .224 | .224 | | |
| E | 1.245 | 1.255 | | 1.250 | 1.250 | 1.250 | 1.250 | | |
| F | 1.245 | 1.255 | | 1.250 | 1.250 | 1.250 | 1.250 | | |
| G | 2.495 | 2.505 | | 2.500 | 2.500 | 2.500 | 2.500 | | |
| H | 0.510 | 0.515 | | .510 | .510 | .510 | .510 | | |
| I | 1.572 | 1.582 | | 1.577 | 1.577 | 1.577 | 1.577 | | |
| J | 2.495 | 2.505 | | 2.500 | 2.500 | 2.500 | 2.500 | | |
| K | 0.257 | 0.262 | | .259 | .259 | .259 | .259 | | |
| L | 0.312 | 0.317 | | .314 | .314 | .314 | .314 | | |
| M | 0.235 | 0.240 | | .238 | .238 | .238 | .238 | | |
| N | 0.100 | 0.140 | | .121 | .120 | .120 | .120 | | |
| O | 0.540 | 0.560 | | .549 | .548 | .549 | .549 | | |
| P | 0.490 | 0.510 | | .500 | .497 | .4985 | .498 | | |
| Q | 3.715 | 3.725 | | 3.720 | 3.720 | 3.720 | 3.720 | | |
| R | 2.720 | 2.760 | | 2.740 | 2.740 | 2.740 | 2.740 | | |
| S | 0.240 | 0.270 | | .250 | .250 | .250 | .250 | | |
| T | 0.100 | 0.180 | | .140 | .140 | .140 | .140 | | |
| U | 1.625 | 1.635 | | 1.630 | 1.630 | 1.630 | 1.630 | | |
| V | 1.362 | 1.372 | | 1.367 | 1.367 | 1.367 | 1.367 | | |
| W | 0.316 | 0.321 | | .316 | .316 | .316 | .316 | | |
| X | 1.250 | 1.270 | | 1.264 | 1.264 | 1.2617 | 1.263 | | |
| Y | 1.565 | 1.585 | | 1.578 | 1.577 | 1.574 | 1.575 | | |
| Z | 0.178 | 0.198 | | .188 | .188 | .188 | .188 | | |
| AA | | | | | | | | | |
| AB | | | | | | | | | |
| AC | | | | | | | | | |
| AD | | | | | | | | | |
| AE | | | | | | | | | |
| AF | | | | | | | | | |
| AG | | | | | | | | | |
| AH | | | | | | | | | |
| Accept/Reject | | | | | | | | | |

| | |
|--------------|----------|
| Measured by: | ST |
| Date: | 14-04-01 |

| | |
|-------------|----------|
| Audited by: | B.A. |
| Date: | 14/04/02 |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|---|------------|----------|
| A | | New Issue | RF | |
| B | 02.12.12 | Re-format; Added Dim. X-Y, DT8683, DT8686, DT8690 | KJ/RF | |
| C | 07.03.21 | Revised per drawing revision C | KJ/JLM | |

| | | |
|--|--|---------------------------|
| DART AEROSPACE LTD | | Work Order: 114492 |
| Description: 206 Saddle left side | | Part Number: D2932 |
| Inspection Dwg: D2932 | | Page 1 of 1 |

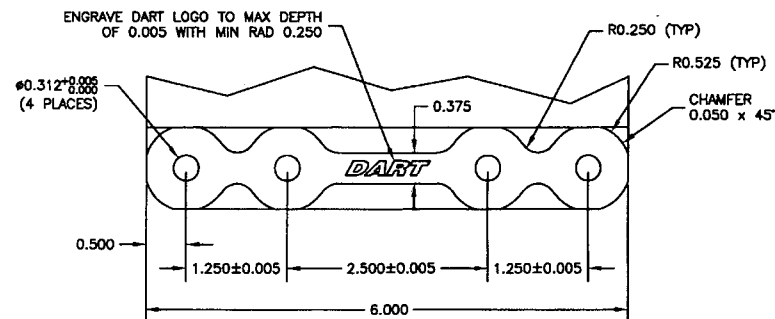
Inspect dimensions highlighted on inspection sheet drawing D2932 Rev. C and record below:

| | | | | Recorded Actual Dimensions | | | | | |
|---------------|-------|-------|----------------|----------------------------|--------|--------|-------|----|--------|
| Dim | Min | Max | Go/No Go Gauge | 9 | 10 | 11 | 12 | By | 13 |
| A | 0.100 | 0.140 | | .129 | .129 | .128 | .129 | | .129 |
| B | 0.100 | 0.140 | | .130 | .130 | .129 | .130 | | .129 |
| C | 0.100 | 0.140 | | .111 | .112 | .112 | .112 | | .113 |
| D | 0.210 | 0.230 | | .224 | .223 | .223 | .224 | | .224 |
| E | 1.245 | 1.255 | | 1.250 | 1.250 | 1.250 | 1.250 | | 1.250 |
| F | 1.245 | 1.255 | | 1.250 | 1.250 | 1.250 | 1.250 | | 1.250 |
| G | 2.495 | 2.505 | | 2.500 | 2.500 | 2.500 | 2.500 | | 2.500 |
| H | 0.510 | 0.515 | | .510 | .510 | .510 | .510 | | .510 |
| I | 1.572 | 1.582 | | 1.577 | 1.577 | 1.577 | 1.577 | | 1.577 |
| J | 2.495 | 2.505 | | 2.500 | 2.500 | 2.500 | 2.500 | | 2.500 |
| K | 0.257 | 0.262 | | .259 | .259 | .259 | .259 | | .259 |
| L | 0.312 | 0.317 | | .314 | .314 | .314 | .314 | | .314 |
| M | 0.235 | 0.240 | | .238 | .238 | .237 | .2375 | | .238 |
| N | 0.100 | 0.140 | | .119 | .119 | .119 | .120 | | .119 |
| O | 0.540 | 0.560 | | .548 | .5495 | .547 | .548 | | .549 |
| P | 0.490 | 0.510 | | .500 | .500 | .4985 | .497 | | .497 |
| Q | 3.715 | 3.725 | | 3.720 | 3.720 | 3.720 | 3.720 | | 3.720 |
| R | 2.720 | 2.760 | | 2.740 | 2.740 | 2.740 | 2.740 | | 2.740 |
| S | 0.240 | 0.270 | | .253 | .253 | .253 | .253 | | .253 |
| T | 0.100 | 0.180 | | .140 | .140 | .140 | .140 | | .140 |
| U | 1.625 | 1.635 | | 1.630 | 1.630 | 1.630 | 1.630 | | 1.630 |
| V | 1.362 | 1.372 | | 1.367 | 1.367 | 1.367 | 1.367 | | 1.367 |
| W | 0.316 | 0.321 | | .316 | .316 | .316 | .316 | | .316 |
| X | 1.250 | 1.270 | | 1.259 | 1.2585 | 1.2586 | 1.259 | | 1.2586 |
| Y | 1.565 | 1.585 | | 1.572 | 1.571 | 1.571 | 1.572 | | 1.571 |
| Z | 0.178 | 0.198 | | .188 | .188 | .188 | .188 | | .188 |
| AA | | | | | | | | | |
| AB | | | | | | | | | |
| AC | | | | | | | | | |
| AD | | | | | | | | | |
| AE | | | | | | | | | |
| AF | | | | | | | | | |
| AG | | | | | | | | | |
| AH | | | | | | | | | |
| Accept/Reject | | | | | | | | | |

| | |
|--------------|--------------------|
| Measured by: | <i>[Signature]</i> |
| Date: | 14-04-01 |

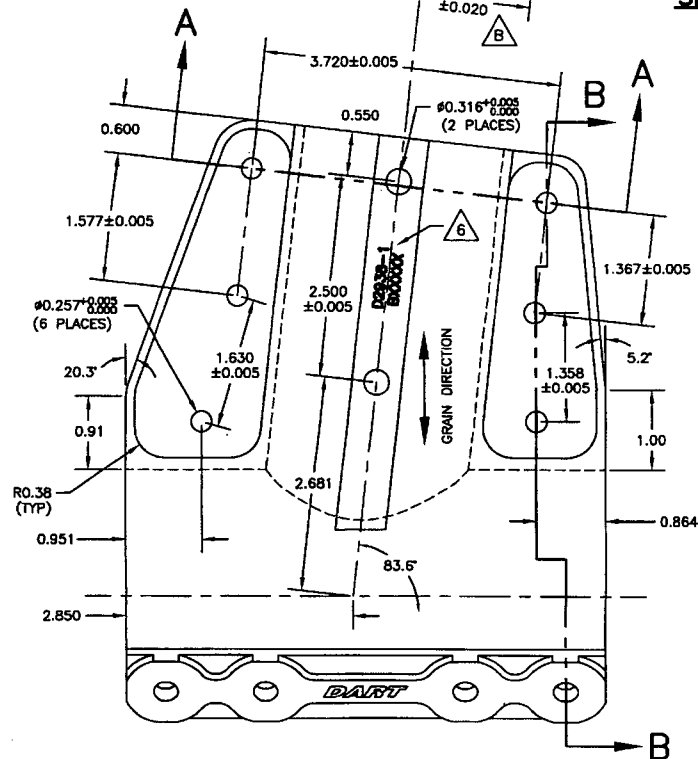
| | |
|-------------|--------------------|
| Audited by: | <i>[Signature]</i> |
| Date: | 14/04/02 |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|---|------------|--------------------|
| A | | New Issue | RF | |
| B | 02.12.12 | Re-format; Added Dim. X-Y, DT8683, DT8686, DT8690 | KJ/RF | |
| C | 07.03.21 | Revised per drawing revision C | KJ/JLM | <i>[Signature]</i> |

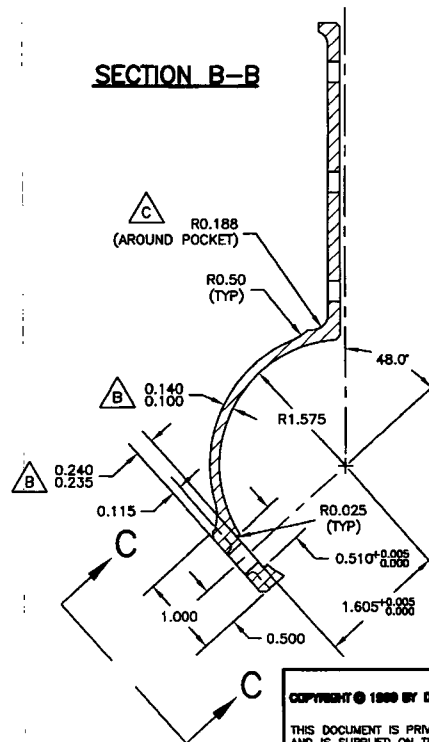


SECTION A-A

VIEW C-C



SECTION B-B



D2938-1 LH SADDLE (SHOWN)
D2938-2 RH SADDLE (OPPOSITE)

- NOTES:**
- 1) MATERIAL: ALUMINUM 7075-T7351 (QQ-A-250/12)
(MAKE FROM 06101-003 SADDLE BILLET, 7075)
 - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
 - 3) BREAK ALL SHARP EDGES 0.010 TO 0.020
 - 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 5) ALL DIMENSIONS ARE IN INCHES
 - 6) ENGRAVE PART AND BATCH NUMBER IN THIS AREA 0.010 TO 0.015 DEEP

| | | |
|------------------|-------------------------|--|
| C | 06.11.09 | R0.188 WAS R0.30 TO R0.25 |
| B | 00.05.29 | CHANGED GEOMETRY AND MATERIAL |
| A | 99.11.12 | NEW ISSUE |
| DESIGN | DRAWN BY # CB | DART DART AEROSPACE USA, INC. BELLINGHAM, WA |
| CHECKED PH | APPROVED [Signature] | DRAWING NO. D2938 |
| DATE 06.11.09 | | TITLE SADDLE OUTSIDE |
| | | REV. C SHEET 1 OF 1 SCALE 2:3 |

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DART AEROSPACE USA, INC.

DART DART AEROSPACE USA, INC.
BIRMINGHAM, AL

| | |
|------------|-------|
| DRAWING NO | D2938 |
|------------|-------|

| | |
|-------|----------------|
| TITLE | SADDLE OUTSIDE |
|-------|----------------|

REV. C

SHEET 1 OF 1

SCALE

2:3

1144921A
14-03-10

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

| | | | | | | | | | | | | | | | | | | |
|--|--|--|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--|----------------------------------|--|------------------------------------|--|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: _____ Part No. _____ NCR No. _____ | DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/> | AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | |
| Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | | | | | | | | | | | | | | |

| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Design | | | | | | | | | |
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| | | |
|--|--|---|
| Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube | General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function | <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence |
| <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge | | |
| <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other | | |